

A METHOD FOR COMPUTING OPTICAL FLOW UNDER THE EPIPOLAR
CONSTRAINT

ABSTRACT OF THE DISCLOSURE

Point matches between images within an image sequence are identified by sparse optical flow computation and employed to compute a fundamental matrix for the epipolar geometry, which in turn is employed to derive an epipolar geometry constraint for computing dense optical flow for the image sequence. The epipolar geometry constraint may further be combined with local, heuristic constraints or robust statistical methods. Improvements in both accuracy and performance in computing optical flow are achieved utilizing the epipolar geometry constraint.